

US Patent Application Serial No. 10/782,984
Amendment Dated 9-29-2005
Reply to Office Action Mailed 6-29-2005

Listing of Claims

The listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Original) An apparatus, comprising:

a processor;

an application program executable by said processor that requires use of a first number of waveforms;

a waveform table comprising a second number of waveform table entries for storing waveforms for use by said application program, wherein said first number exceeds said second number;

an application policy comprising waveform sequencing information specific to said application program;

a dynamic waveform manager that monitors execution of said application program, accesses said application policy to determine which of said first number of waveforms are next required by said application program, and loads one or more of said first number of waveforms into a corresponding respective one or more of said second number of waveform table entries in said waveform table.

2. (Original) An apparatus in accordance with claim 1, wherein:

said dynamic waveform manager receives indication of a last use by said application program of a completed one of said one or more of said first number of waveforms that are loaded into said corresponding respective one or more of said second number of waveform table entries in said waveform table, accesses said application policy to select a next waveform still to be used by said application program from said plurality of waveforms that are not currently loaded into one of said limited number of waveform table entries, and replaces said completed one of said loaded waveforms with said selected next waveform in

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said one of said limited number of waveform table entries corresponding to said completed one of said loaded waveforms.

3. (Original) An apparatus in accordance with claim 1, wherein:

said dynamic waveform manager retrieves said one or more of said first number of waveforms to be loaded into said corresponding respective one or more of said second number of waveform table entries in said waveform table before said application program requires said one or more of said first number of waveforms.

4. (Original) An apparatus in accordance with claim 1, further comprising:

an application analyzer which accesses said application program to determine said waveform sequencing information specific to said application program and to generate said application policy.

5. (Original) An apparatus in accordance with claim 1, wherein said

application policy comprises indication of first use and of last use by said application program of each of said first number of waveforms to be used by said application program.

6. (Original) An apparatus in accordance with claim 5, wherein:

said dynamic waveform manager loads said first number of waveforms to be used by said application program in order of first use by said application program.

7. (Original) An apparatus in accordance with claim 1, further comprising:

a memory for storing said first number of waveforms that is independent of said waveform table.

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8. (Original) A method for dynamically managing loading of a plurality of waveforms to a waveform table characterized by a limited number of waveform table entries during execution of an application program, said plurality of waveforms being greater in number than said limited number of waveform table entries, said method comprising:

determining a subset of said plurality of waveforms to be used first by said application program;

loading of each of said subset of said waveforms to a respective one of said limited number of waveform table entries;

receiving indication of a last use by said application program of a completed one of said loaded waveforms loaded at a corresponding one of said limited number of waveform table entries;

selecting a next waveform still to be used by said application program from said plurality of waveforms that are not currently loaded into one of said limited number of waveform table entries;

replacing said completed one of said loaded waveforms with said selected next waveform in said one of said limited number of waveform table entries corresponding to said completed one of said loaded waveforms.

9. (Original) A method in accordance with claim 8, comprising:

repeating said receiving step through said replacing step until all of said plurality of waveforms have completed last use or are currently loaded into one of said limited number of waveform table entries.

10. (Original) A method in accordance with claim 8, wherein said selecting step and said replacing step are performed prior to requirement of said selected next waveform by said application program.

11. (Original) A method in accordance with claim 8, further comprising:

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prior to execution of said application program, accessing said application program to determine said waveform sequencing information specific to said application program; and

generating said application policy based on said waveform sequencing information specific to said application program.

12. (Original) A method in accordance with claim 11, wherein said waveform sequencing information specific to said application program comprises: indication of first use and of last use by said application program of each of said plurality of waveforms to be used by said application program.

13. (Original) A method in accordance with claim 12, wherein said step for determining said subset of said plurality of waveforms to be used first by said application program comprises:

accessing said application policy to obtain said indication of first use by said application program of each of said plurality of waveforms, and selecting said subset of said plurality of waveforms according to order of first use by said application program.

14. (Original) A computer readable storage medium tangibly embodying program instructions implementing a method for dynamically managing loading of a plurality of waveforms to a waveform table characterized by a limited number of waveform table entries during execution of an application program, said plurality of waveforms being greater in number than said limited number of waveform table entries, said method comprising the steps of:

determining a subset of said plurality of waveforms to be used first by said application program;

loading of each of said subset of said waveforms to a respective one of said limited number of waveform table entries;

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receiving indication of a last use by said application program of a completed one of said loaded waveforms loaded at a corresponding one of said limited number of waveform table entries;

selecting a next waveform still to be used by said application program from said plurality of waveforms that are not currently loaded into one of said limited number of waveform table entries;

replacing said completed one of said loaded waveforms with said selected next waveform in said one of said limited number of waveform table entries corresponding to said completed one of said loaded waveforms.

15. (Original) The computer readable storage medium of claim 14, comprising:

repeating said receiving step through said replacing step until all of said plurality of waveforms have completed last use or are currently loaded into one of said limited number of waveform table entries.

16. (Original) The computer readable storage medium of claim 14, wherein said selecting step and said replacing step are performed prior to requirement of said selected next waveform by said application program.

17. (Original) The computer readable storage medium of claim 14, further comprising:

prior to execution of said application program, accessing said application program to determine said waveform sequencing information specific to said application program; and

generating said application policy based on said waveform sequencing information specific to said application program.

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18. (Original) The computer readable storage medium of claim 17, wherein said waveform sequencing information specific to said application program comprises:

indication of first use and of last use by said application program of each of said plurality of waveforms to be used by said application program.

19. (Original) The computer readable storage medium of claim 18, wherein said step for determining said subset of said plurality of waveforms to be used first by said application program comprises:

accessing said application policy to obtain said indication of first use by said application program of each of said plurality of waveforms, and selecting said subset of said plurality of waveforms according to order of first use by said application program.